

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 16 August 2001 (16.08.01)	Applicant's or agent's file reference N1999227PCT
International application No. PCT/US99/24649	Priority date (day/month/year)
International filing date (day/month/year) 20 October 1999 (20.10.99)	
Applicant COOK, Andre, Georges et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

30 April 2001 (30.04.01)

☐ in a notice effecting later election filed with the International Bureau on:
2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Pascal Piriou Telephone No.: (41-22) 338.83.38
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REC'D 18 FEB 2002

WIPO

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT



(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DN1999227PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/24649	International filing date (day/month/year) 20/10/1999	Priority date (day/month/year) 20/10/1999
International Patent Classification (IPC) or national classification and IPC F16L11/10		
Applicant THE GOODYEAR TIRE & RUBBER COMPANY et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 30/04/2001	Date of completion of this report 14.02.2002
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Duerhammer, M Telephone No. +49 89 2399 2743 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/US99/24649

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-7 as originally filed

Claims, No.:

1-13 as received on 11/10/2001 with letter of 09/10/2001

Drawings, sheets:

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/US99/24649

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-13
	No:	Claims	
Inventive step (IS)	Yes:	Claims	4-13
	No:	Claims	1-3
Industrial applicability (IA)	Yes:	Claims	1-13
	No:	Claims	

**2. Citations and explanations
see separate sheet**

Section V,2:

Claims 1 to 3

Document FR-A-1467 950 discloses a flexible hose comprising a flexible material, the flexible material comprising a reinforcing rod positioned externally of the flexible material, the flexible material being formed with terminal ends and the reinforcing rod having a terminal end being located short of the terminal ends of the flexible material. It is clear from the description (it says that the spiral can be attached within or outside the hose) and figures (they show that the spiral is located short of the ends of the flexible material) that no spiral reinforcement at the terminal ends of the hose is provided. With this construction the flexible material becomes a soft cuff adapted to be received by a hose fitting.

The hose according to claim 1 differs therefrom in the sense that the flexible material comprises multiple layers and that the reinforcing rod is bonded to the outermost layer of the flexible material.

Taking into consideration that the essence of the invention is to be seen in the fact that a non-reinforced end of the flexible material forms a soft cuff adapted to be received by a hose fitting (as shown by FR-A-1467 950), it is obvious for the man skilled in the art to additionally provide the hose with multiple layers and to bond the reinforcing rod to the outermost layer because the problem of forming a soft cuff at the terminal ends of the hose is clearly solved.

The present application does not meet the requirements of Article 33(3), because the solution proposed in claim 1 cannot be considered as involving an inventive step.

Dependent claims 2 and 3 do not contain any features which, in combination with the features of claim 1, meet the requirements of the PCT in respect of inventive step.

Claims 4 to 8

Page 4 of the description (see also US-A-4856 720) describes as prior art a method of manufacturing a hose comprising

rotating a mandrel, feeding a length of material onto a mandrel as it rotates and feeding a second length of material in form of a reinforcing rod onto the mandrel as it rotates and curing the hose length.

The method according to claim 4 differs therefrom by

prior to feeding the reinforcing rod onto the material modifying the hose length to create non-adhesive regions thus prohibiting the second length of material from curing to the reinforcing rod.

The cuffs which are adapted to be received by a hose fitting may be at the edges of these pre-selected region.

Such a possibility is not foreseen in prior art documents so that the application meets the requirements of Article 33(3) PCT/52(1) EPC.

Dependent claims 5 to 8 contain special embodiments of the subject-matter of claim 1 and fulfil as dependent claims likewise the requirement of Article 33(3) PCT.

Note: In respect of clarity (see Article 6 PCT) claim 4 should contain at its end the feature "thus prohibiting the second length of material from curing to the reinforcing rod". Only in combination with this feature the non-abrasive regions make a sense because the hose must not be cured at said portion.

Claims 9 to 13

Claim 9 concerns a hose length formed during the formation of a hose, comprising an elastomeric layer and a reinforcing rod helically wound externally of the elastomeric layer, the layer being cured to the reinforcing rod. Such a hose is generally known, as described on page 4 and in US-A-4856 720.

The device according to claim 9 differs therefrom by non-adhesive regions formed externally of the outermost layer periodically spaced along the hose length thus prohibiting the elastomeric layer from curing to the reinforcing rod.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US99/24649

For the same reasons as mentioned above in respect of claim 4 also the subject-matter of claims 9 to 13 fulfils the requirement of Article 33(3) PCT.

Note: In respect of clarity (see Article 6 PCT) claim 9 should refer to a hose length "formed during the formation of a hose in accordance with claims 1 to 3" and contain at its end the feature "thus prohibiting the elastomeric layer from curing to the reinforcing rod". Only in combination with this feature the non-abrasive regions make a sense because the hose must not be cured at said portion.

CLAIMS

What is claimed is:

1. A flexible hose (10) comprising a flexible material (14), the flexible material (14) comprising multiple layers and a reinforcing rod (12) positioned externally of the outermost layer of the flexible material (14) and bonded to the outermost layer of the flexible material (14), the flexible material (14) being formed with terminal ends (18), the improvement being characterized by:
the reinforcing rod (12) having at least one terminal end (16) being located short of the terminal ends (18) of the flexible material (14), the flexible material (14) thus becoming a soft cuff (20) adapted to be received by a hose fitting.
2. A flexible hose (10) in accordance with claim 1, wherein the hose (10) is further characterized by an imprinted indent (50) extending through the soft cuff (20).
3. A flexible hose (10) in accordance with claim 2, wherein the reinforcing rod (12) is wound at a pitch externally of the flexible material (14) and the indent (50) is wound at a pitch greater than the pitch of the reinforcing rod (12).
4. A method of manufacturing a flexible hose (10) comprising
 - a) rotating a mandrel (30)
 - b) feeding a length of material (42) onto the mandrel (30) as the mandrel (30) rotates, to build a hose length (32) on the mandrel (30),
 - c) feeding a second length of material in the form of a reinforcing rod (12) onto the mandrel (30) as the mandrel (30) rotates to form a helical reinforcing rod (12) on the hose length (32), and
 - d) curing the hose length (32),the improvement being characterized by:
prior to feeding the reinforcing rod (12) onto the mandrel (30), modifying the hose length (32) to create non-adhesive regions (46).
5. A method of manufacturing a hose (10) in accordance with claim 4, the method being further characterized by applying a third material (44) to the hose length (32) to create the non-adhesive regions (46).

6. A method of manufacturing a hose (10) in accordance with claim 4, the method being further characterized by cutting the hose length (32) in the non-adhesive regions (46).
- 5 7. A method of manufacturing a hose (10) in accordance with claim 4, the method being further characterized by varying the speed at which the mandrel (30) rotates as the reinforcing rod (12) is feed onto the mandrel (30) at the non-adhesive regions (46).
8. A method of manufacturing a hose (10) in accordance with claim 4, the method being
10 further characterized by reducing the winding tension of the reinforcing rod (12) as the reinforcing rod (12) is feed onto the mandrel (30) at the non-adhesive regions (46).
9. A hose length (32) comprising at least one elastomeric layer (22 or 28) and a reinforcing
15 rod (12) helically wound externally of the outermost elastomeric layer (28), the improvement being characterized by:
non-adhesive regions (46) formed externally of the outermost elastomeric layer
periodically spaced along the hose length (32).
10. A hose length (32) in accordance with claim 9, the hose length (32) being further
20 characterized by the reinforcing rod (12) not being adhered to the at least one elastomeric layer (22 or 28) in the non-adhesive regions (46).
11. A hose length (32) in accordance with claim 9, the hose length (32) being further
25 characterized by a rope (48) being wound adjacent to the reinforcing rod (12).
12. A hose length (32) in accordance with claim 9, the hose length being further
characterized by the reinforcing rod (12) being wound at a greater pitch length in non-
adhesive regions (46).
- 30 13. A hose length (32) in accordance with claim 9, the hose length being further
characterized by the reinforcing rod (12) being wound at a lesser winding tension in the
non-adhesive regions (46).

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

To:

THE GOODYEAR TIRE & RUBBER COMPANY
Department 823
Attn. Krawcczyk, Nancy T.
1144 East Market Street
Akron, Ohio 44316-0001
UNITED STATES OF AMERICA

Date of mailing
(day/month/year)

13/06/2000

Applicant's or agent's file reference

DN1999227PCT

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/US 99/24649

International filing date
(day/month/year)

20/10/1999

Applicant

THE GOODYEAR TIRE & RUBBER COMPANY et al.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Lucia Van der Leeden

RECEIVED

19 2000

**GOODYEAR PATENT
& TRADEMARK DEPT.**

JUN 20 2000

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference DN1999227PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 99/ 24649	International filing date (day/month/year) 20/10/1999	(Earliest) Priority Date (day/month/year)

Applicant

THE GOODYEAR TIRE & RUBBER COMPANY et al.

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 2 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of Invention is lacking** (see Box II).

4. With regard to the title,

the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

1

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/24649

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16L11/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 1 467 950 A (NOVO) 17 April 1967 (1967-04-17) claims 1,2; figures ---	1,10,11
X	US 2 032 753 A (JAMES) 3 March 1936 (1936-03-03) page 2, right-hand column, line 27 - line 40; figures ---	1,10,11
A	US 4 856 720 A (DEREGIBUS ALFIO) 15 August 1989 (1989-08-15) cited in the application column 2, line 1 - line 7; figures ---	1,4,7,9
A	GB 1 239 387 A (PORTER CO. LTD.) 14 July 1971 (1971-07-14) page 1, right-hand column, line 61 - line 75; figures 1,2 -----	2,13

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

31 May 2000

Date of mailing of the international search report

13/06/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Budtz-Olsen, A

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/24649

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 1467950	A	17-04-1967	NONE	
US 2032753	A	03-03-1936	NONE	
US 4856720	A	15-08-1989	NONE	
GB 1239387	A	14-07-1971	NONE	

PATENT COOPERATION TREATY

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FEB 20 2002

GOODYEAR PATENT
& TRADEMARK DEPT.

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

Krawcczyk, Nancy T.
THE GOODYEAR TIRE & RUBBER COMPANY
Department 823
1144 East Market Street
Akron, Ohio 44316-0001
ETATS-UNIS D'AMERIQUE

PCT

**NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**
(PCT Rule 71.1)

Date of mailing (day/month/year)	14.02.2002
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Applicant's or agent's file reference DN1999227PCT	IMPORTANT NOTIFICATION
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International application No. PCT/US99/24649	International filing date (day/month/year) 20/10/1999	Priority date (day/month/year) 20/10/1999
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Applicant
THE GOODYEAR TIRE & RUBBER COMPANY et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/	Authorized officer
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